Abstract of the Disclosure

An wafer lifter for self-centering a wafer onto a wafer pedestal situated in a physical vapor deposition chamber and a method for self-centering a wafer onto the wafer pedestal are described. The wafer lifter is constructed by a lifter body of annular shape, at least four support fingers emanating upwardly from the wafer lifter body and are spaced-apart from each other, and a platform on a tip portion of each of the at least four support fingers defined by a slanted surface from a vertical plane of an outside surface of the support finger. The platform, when supporting a wafer thereon, leaves substantially no gap between the slanted surface and an outer periphery of the wafer.